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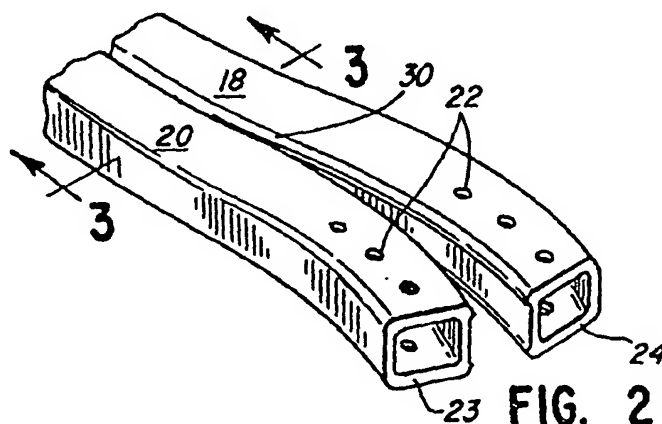
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54 Improved multiple conduit drainage device.

57 A multiple conduit flexible drainage device in
 which the adjacent conduits are joined by a plurality
 of membranes and may be parted from their proxi-
 mal ends, reliably and without damage to the con-
 duits.



EP 0 332 366 A2

IMPROVED MULTIPLE CONDUIT DRAINAGE DEVICE

Technical Field

This invention relates generally to unitary multiple conduit flexible drainage devices which share a common manifold at their proximal ends. More particularly, this invention relates to unitary multiple conduit flexible drainage devices sharing a common manifold at their proximal ends, in which the individual conduits may be readily parted at their distal ends for routing to different locations.

Background Art

Multiple conduit drainage devices having a common manifold at their proximal ends are used in many fields, including particularly in the medical field. In a typical medical application, the individual conduits initially are joined along their edges into a unit. The individual conduits are parted, as needed, cut to the appropriate lengths, and routed to the desired locations within a surgical wound site. For example, after surgery is performed on the abdomen, the conduits can be routed separately to the desired abdomen quadrants. Similarly, after a cholecystostomy or a cholecystotomy, separate conduits may be used to drain fluid from the right gutter and Morison's pouch.

In such medical applications, once the conduits are positioned, the wound site is sutured with the manifold under the skin, and a single conduit passing through the wound suture from the manifold to an appropriate gravity or suction drainage device. Thus, as the wound drains, fluid passes from each of the conduits into the manifold and through the single drainage conduit.

Unfortunately, in currently available multiple conduit drainage devices, the individual conduits cannot be readily and reliably parted without damaging adjacent conduits. A multiple conduit drainage device of the type currently available is illustrated in FIGURE 1. In this device adjacent conduits 10 and 12 are joined by a single fairly thick membrane 14. When the conduits are separated, a portion 16 of conduit 12 is torn away, rendering the conduit 12 useless, and creating an undesirable ragged appendage on conduit 10.

Disclosure of Invention

It is therefore an object of the present invention to provide a unitary multiple conduit flexible drainage device in which individual conduits may be readily parted.

It is a further object of the present invention to provide a multiple conduit flexible drainage device in which adjacent conduits may be parted reliably, and without damage to any of the conduits.

It is yet another object of the present invention to provide a multiple conduit flexible drainage device in which relative movement of adjacent conduits is minimized.

These and other objects of the present invention will be apparent from the discussion below.

The present invention is therefore directed to a unitary multiple conduit flexible drainage device in which the conduits share a common manifold at their proximal ends for conveying fluid received by the conduits into a common drainage conduit. Each conduit is joined to its adjacent conduits by at least two generally parallel membranes. These membranes may be made thinner and hence more readily frangible than the single joining membrane of the prior art, so that when the distal ends of the conduits are parted, the parting occurs along the membranes, cleanly and without damage to the conduits.

Brief Description of the Drawings

The features of this invention which are believed to be novel are set forth with particularity in the appended claims. The invention, together with its objects and the advantages thereof, may be best understood by reference to the following drawings, in which like reference numerals identify like elements in the several figures and in which:

FIGURE 1 is a perspective view of a unitary pair of conduits of the prior art, in which one of the conduits was damaged when an attempt was made to part the conduits;

FIGURE 2 is a perspective view of a unitary double conduit flexible drainage device in accordance with the present invention, in which the two adjacent conduits have been parted at their distal end;

FIGURE 3 is a cross-sectional view of the conduits of FIG. 2, taken along lines 3-3 of FIG. 2; and

FIGURE 4 is a perspective view of a unitary multiple conduit flexible drainage device in accordance with the present invention which comprises two conduits, in which the conduits have been parted, cut to the desired lengths, and routed to different locations.

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FIG. 1
(PRIOR ART)

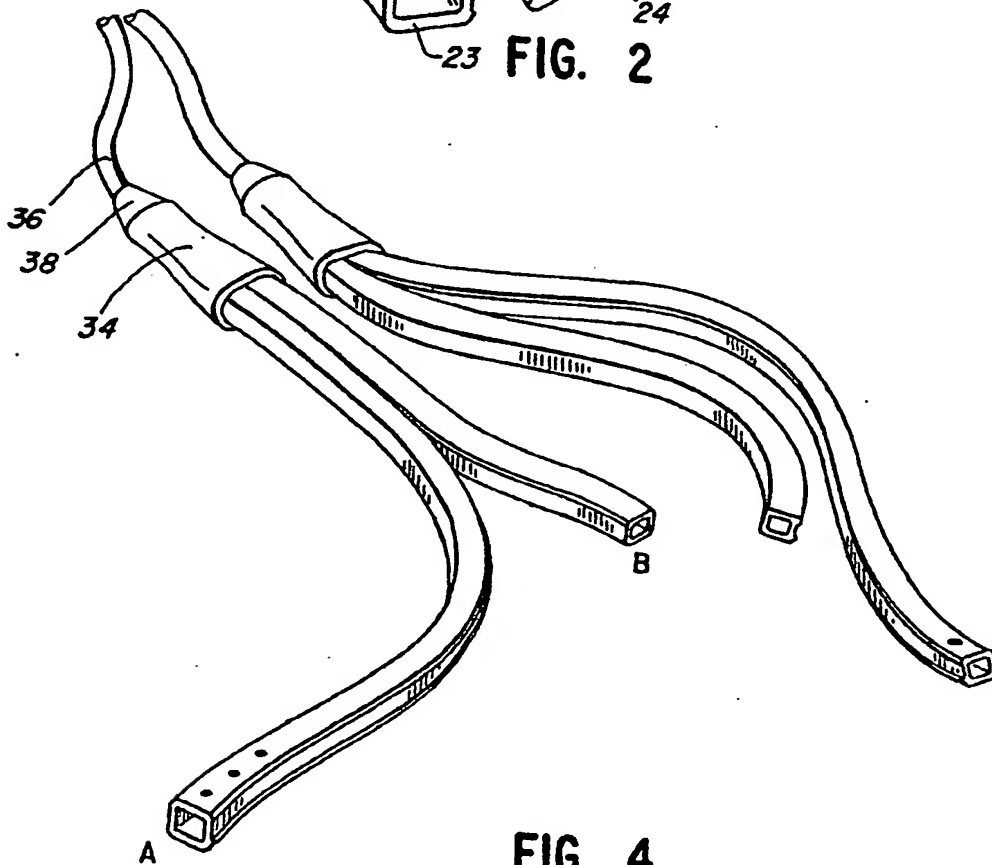
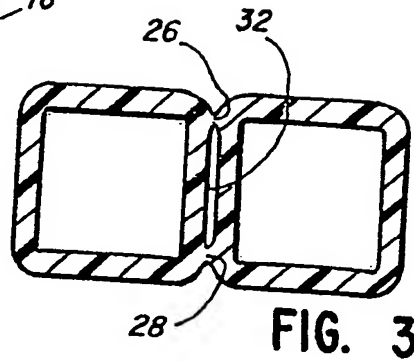
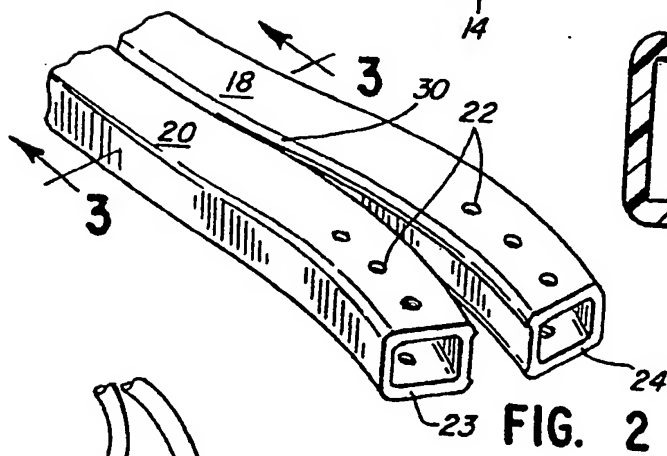
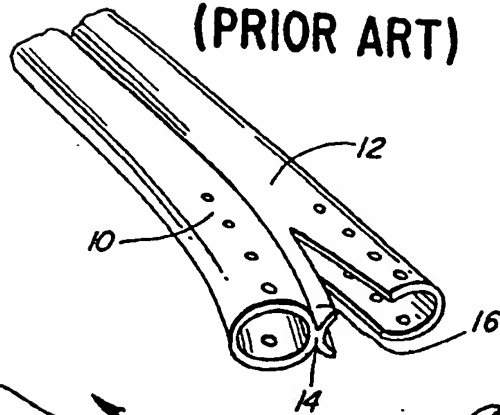


FIG. 4